

REMARKS

The Applicant would like to thank the Examiner for the interview conducted on March 27, 2006 with Jim Shay regarding the discussion of Fischell et al. (U.S. Patent No. 6,016,449).

Claims 1-193 were originally filed and examined. Claims 121, 124, 125, 126, 127, 128, 129, 133, 135, 136, 137, 138, 150, 153-154, 157-158, 160-168, 172-173, 175, 178-179, and 181-182 are currently amended. Claims 1-120, 122, 130-132, 134, 139-149, 151-152, 174, 177, 180, and 183-193 are cancelled. Claims 194-237 are new. No new matter has been added. Examination and reconsideration of all pending claims are respectfully requested.

Allowable Subject Matter

Applicant acknowledges with appreciation the Examiner's indication that claims 174 and 175 are directed to allowable subject matter.

Drawing Objections

The Examiner objected to the drawings for not showing every feature of the invention specified in the claims. Specifically, the Examiner requested that "the microelectrode and microelectrode shaft be shown or the feature(s) canceled from the claim(s)."

Applicant has added new FIG. 41 and has amended paragraph [0330] of the originally filed specification to refer to FIG. 41. No new matter has been added. The subject matter illustrated in new FIG. 41 corresponds to the subject matter described in paragraphs [0072] and [0330] and claims 173-176 of the originally filed specification. *See also* FIGS. 1 and 4.

Claim Objections

The Examiner objected to claims 86-193 because of the informality that there were two claims 86. Applicant has deleted claims 1-120, including the "second claim 86." Consequently, the Examiner's objection to the claim numbering is now moot.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-7 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has canceled claims 1-7 and such a rejection is now moot.

Claim Rejections Under 35 U.S.C. § 102

Claims 8-14, 27, 32, 33, 36-41, 45-48, 54-89, 94-106, 108, 121-135, 139-148, 150, 151, 154, 157-159, 170-172, 177, 184-186 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,016,449 to Fischell et al. ("Fischell et al.").

While Applicants do not acquiesce or agree with the Examiner's rejection, to expedite prosecution of the application, Applicant has canceled claims 8-14, 27, 32, 33, 36-41, 45-48, 54-89, 94-106, 108, 122, 130-132, 134, 139-148, 151, 177, and 184-186. Applicant herein reserves the right to pursue the subject matter of these claims in a continuation or continuation-in-part application. Applicant thus respectfully requests the rejections to these claims be withdrawn.

Currently amended independent claim 121 claims "[a] neurological control system for modulating the activity of at least one nervous system component . . . comprising . . . a stimulating and recording unit constructed and arranged to generate said neural modulation signal based upon a neural response sensed by said at least one sensor *in response to a previously delivered neural modulation signal*." (emphasis added). In addition, currently amended independent claim 121 requires "at least one sensor, each constructed and arranged to sense at least one parameter that comprises at least one of physiologic values and neural signals, which is indicative or predictive of a seizure." (emphasis added).

While Fischell et al. does disclose a detection and stimulation system, it fails to teach or suggest a system including the structural limitation of a stimulating and recording unit constructed and arranged to generate said neural modulation signal based upon a neural response sensed by said at least one sensor *in response to a previously delivered neural modulation signal* as required by currently amended independent claim 121.

Claims 123-127 depend, directly or indirectly, from independent claim 121 and therefore include the limitations thereof. For at least the reasons provided with respect to claim 121, claims 123-127 are not anticipated by Fischell et al. under 35 U.S.C. § 102(e).

Currently amended independent claim 128 has been amended to include "controller means for modulating parameters of a *subsequent neural modulation signal based on the sensed neural response to a previously delivered neural modulation signal*." (emphasis added). Similar to the

remarks made regarding claim 121, Fischell et al. does not teach or suggest an apparatus for delivering a neural modulation signal and then a subsequent neural modulation signal based on the sensed neural response to the previously delivered neural modulation signal. As such, the Applicant respectfully requests the rejection of claim 128 over Fischell et al. be withdrawn. Claims 129, 133, and 135 - 138 depend from independent claim 128 and therefore include the limitations thereof. For at least the reasons provided with respect to claim 128, claims 129, 133, and 135-138 are not anticipated by Fischell et al. under 35 U.S.C. § 102(e). The Applicant respectfully requests the rejection to these claims be withdrawn.

Independent claim 150 has been amended to incorporate the subject matter of dependent claim 174 which the Examiner has indicated is allowable. Since claim 150 substantially incorporates the subject matter of claims 173 and 174, amended independent claim 150 should be allowable. Claims 153-172 depend from currently amended independent claim 150 and thus include the limitations thereof. Claims 153-172 are therefore also allowable. The Applicant respectfully requests the rejection to these claims be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-7, 28, 34, 35, 42-44, 49-53, 90-93, 107, 109-120, 136-138, 149, 152, 153, 155, 156, 160-169, 178-183, 187-193 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fischell et al.

While Applicants do not acquiesce or agree with the Examiner's rejection, to expedite prosecution of the application, Applicant has canceled claims 1-7, 28, 34, 35, 42-44, 49-53, 90-93, 107, 109-120, 149, 152, 180, 183, 187-193. Applicant herein reserves the right to pursue the subject matter of these claims in a continuation or continuation-in-part application. Applicant thus respectfully requests the rejections to these claims be withdrawn.

Claims 136-138 depend from currently amended independent claim 128. As discussed above, Fischell et al. does not teach or suggest all of the claim limitations of independent claim 128, including at least, "controller means for modulating parameters of a *subsequent neural modulation signal based on the sensed neural response to a previously delivered neural modulation signal.*"

(emphasis added). Claims 136-138 depend from claim 128 and therefore include the limitations thereof. As such, the Applicant respectfully requests the rejection to claims 136-138 be withdrawn.

Claims 153, 155, 156, 160-169, 178, 179, 181, and 182 depend from currently amended independent claim 150 and therefore include the limitations thereof. As Fischell et al. does not teach or suggest all of the claim limitations of independent claim 150 as discussed above, Fischell et al. does not teach or disclose all of the limitations of dependent claims 153, 155, 156, 160-169, 178, 179, 181, and 182, and thus the Applicant respectfully requests the rejection to claims 153, 155, 156, 160-169, 178, 179, 181, and 182 be withdrawn.

Claim Rejections Under § 103(a) Over Fischell et al. in view of Honig (3,218,638)

Claims 15-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fischell et al. in view of U.S. Patent No. 3,218,638 to Honig.

Claims 15-26 have been canceled and thus the Examiner's rejections are now moot.

Claim Rejections Under § 103(a) Over Fischell et al. in view of Schwartz (3,522,811)

Claims 29-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fischell et al. in view of U.S. Patent No. 3,522,811 to Schwartz et al.

Claims 29-31 have been canceled and thus the Examiner's rejections are now moot.

Claim Rejections Under § 103(a) Over Elsberry et al. (6,094,598)

Claim 173 and 176 are rejected under § 103(a) as being unpatentable over U.S. Patent No. 6,094,598 to Elsberry et al.

Independent claim 173 has been amended to include the limitations of canceled claim 174, which the Examiner has indicated would be allowable if rewritten in independent form. As claim 174 has been rewritten in independent form as amended claim 173, Applicant respectfully requests the rejection over claim 173 be withdrawn. Dependent claim 176 depends from currently amended independent claim 173 and includes the limitations thereof. Applicants therefore respectfully requests the rejection to claim 176 be withdrawn.

Double Patenting Rejections

Claims 85, 94, 121, 128, and 150 are rejected on the grounds of non-statutory obviousness-type double patenting as being unpatentable over claims 1-6 of commonly owned U.S. Patent No. 6,366,813 (the “’813 patent”).

Claims 85 and 94 have been canceled and thus the Examiner’s rejection of these claims is moot.

MPEP 804, section II.B.1 states in relevant part,

Any obviousness-type double patenting rejection should make clear: (A) The differences between the inventions defined by the conflicting claims – a claim in the patent compared to a claim in the application; and (B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim at issue would have been an obvious variation of the invention defined in the claim in the patent.

The Examiner has not shown the differences between the inventions defined by claims 1- 6 in the ‘813 patent and claim 121 in the present application, and has not made clear the reasons why a person of ordinary skill in the art would conclude that the invention defined in claim 121 would have been an obvious variation of the invention defined in claims 1-6 of the ‘813 patent.

Claim 121 reads, in relevant part, “[a] neurological control system for modulating the activity of at least one nervous system component . . . comprising . . . a stimulating and recording unit *constructed and arranged to generate said neural modulation signal based upon a neural response sensed by said at least one sensor in response to a previously delivered neural modulation signal.*” (emphasis added). Claims 1-6 of the ‘813 patent recite components for neural modulation in the treatment of disease, and the Examiner has not shown how such claims teach, suggest, or make obvious a stimulating and control unit *constructed and arranged to generate a neural modulation signal based upon a neural response sensed by said at least one sensor in response to a previously delivered neural modulation signal* as required by claim 121. As the Examiner has failed to show where claims 1-6 of the ‘813 patent teach, suggest, or make obvious all of the claim limitations of claim 121, the Applicant respectfully requests the Examiner withdraw the double patenting rejection to claim 121.

The Examiner has not shown the differences between the inventions defined by claims 1- 6 in the '813 patent and claim 128 in the present application, and has not made clear the reasons why a person of ordinary skill in the art would conclude that the invention defined in claim 128 would have been an obvious variation of the invention defined in claims 1-6 of the '813 patent.

Currently amended independent claim 128 recites a "controller means for modulating parameters of a subsequent neural modulation signal based on the sensed neural response to a previously delivered neural modulation signal." Similar to the remarks regarding claim 121, the Examiner has not shown how claims 1-6 of the '813 patent teach, suggest, or make obvious a controller means for modulating parameters of a subsequent neural modulation signal based on the sensed neural response to a previously delivered neural modulation signal. As the Examiner has not shown how claims 1-6 of the '813 patent teach, suggest, or make obvious all of the claim limitations of claim 128, the Applicant respectfully requests the Examiner withdraw the double patenting rejection to claim 128.

The Examiner has not shown the differences between the inventions defined by claims 1- 6 in the '813 patent and claim 150 in the present application, and has not made clear the reasons why a person of ordinary skill in the art would conclude that the invention defined in claim 150 would have been an obvious variation of the invention defined in claims 1-6 of the '813 patent.

Currently amended independent claim 150 has been amended to incorporate "an intracranial catheter that is attached to said stimulating electrode array." The Examiner has not shown where claims 1-6 of the '813 patent teach, suggest, or make obvious an intracranial catheter that is attached to said stimulating electrode array. As the Examiner has not shown where claims 1-6 of the '813 patent teach, suggest, or make obvious all of the claim limitations of claim 150, the Applicant respectfully requests the Examiner withdraw the double patenting rejection to claim 150.

Claims 8, 9, and 77 are rejected on the grounds of non-statutory obviousness-type double patenting as being unpatentable over claims 1-6 of commonly owned U.S. Patent No. 6,366,813 in view of Fischell.

Claims 8, 9, and 77 have been canceled and the Examiner's rejections are now moot.

Allowable Subject Matter

Claims 174 and 175 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for the indication that claims 174 and 175 would be allowable if rewritten into independent form. Applicants have canceled dependent claim 174 and have moved the subject matter of dependent claim 174 into independent claim 173. Consequently, independent claim 173 and dependent claims 175-176 should be allowable.

Applicant has also added new independent claim 194 that includes the subject matter of claims 173 and 175. Since the Examiner has indicated that the subject matter of claim 175 is allowable if made into independent form, new independent claim 194 and new dependent claims 195 to 200 should also be allowable.

New Claims

To more fully claim the novel aspects of the present invention, Applicant has added new claims 201 to 237. Examination and consideration of the new claims are respectfully requested.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-493-9300.

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. 23-2415 (Docket No. 31685-704.502).

Respectfully submitted,



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